Bonneville Power Administration Fish and Wildlife Program FY99 Proposal Form

Section 1. General administrative information

Yakima Basin Side Channels

Bonneville project number	Bonneville project number, if an ongoing project 9705100					
Business name of agency, institution or organization requesting funding Yakama Indian Nation						
Business acronym (if app	ropriate) YIN					
Proposal contact person o	r principal investigator:					
Name	Scott Nicolai					
Mailing Address	P.O. Box 151					
City, ST Zip	City, ST Zip Toppenish, WA 98948					
Phone (509) 865-6262, ext. 6689						
Fax	(509) 865-6293					
Email address	snicolai@yakama.com					

Subcontractors. List one subcontractor per row; to add more rows, press Alt-Insert from within this table

Organization	Mailing Address	City, ST Zip	Contact Name

NPPC Program Measure Number(s) which this project addresses.

Habitat goal 7.6A.2: "At a minimum, maintain the present quantity and productivity of salmon and steelhead habitat. Then, improve the productivity of salmon and steelhead habitat critical to recovery of weak stocks. Next, enhance the productivity of habitat for other stocks of salmon and steelhead. Last, provide access to inaccessible habitat that has been blocked by human development activities.

Policy 7.6B.3: "Give highest priority to habitat protection and improvement in areas of the Columbia Basin where low or medium habitat productivity or low pre-spawning survival for identified weak populations are limiting factors. Give priority to habitat projects that have been integrated into broader watershed improvement effort and that promote cooperative agreements with private landowners.

Policy 7.8E.1: "Implement land exchanges, purchases or easements of a sufficient width to improve and maintain salmon and steelhead production in privately owned riparian areas and adjacent lands, with full compensation of landowners. Consider factors such as need for fish passage facilities and potential improvements to instream flow conditions when purchasing or exchanging private property. In implementing this measure, acquisition of easement should be the preferred approach for protecting riparian areas and adjacent lands. Exchange or purchase that results in net gains of land in public ownership should be considered the lowest priority method for this purpose. States and federal agencies provide an updated list and report progress to the Council by December 31, 1993. In addition, federal agencies should provide to the council by December of each year, a list of high quality riparian lands that potentially could be acquired through exchange."

NMFS Biological Opinion Number(s) which this project addresses.

Not applicable to this project.

Other planning document references.

If the project type is "Watershed" (see Section 2), reference any demonstrable support from affected agencies, tribes, local watershed groups, and public and/or private landowners, and cite available documentation.

Wy Kan Ush Me Wa Kish Wit, (PAGE 3-20):

"Current land use practices commonly impact all freshwater habitats and have pervasive and widespread impacts on aquatic species (Chamberlin et al. 1991; Hicks et al. 1991; Platts 1991). They may also affect side channels and oxbow lakes, which are often some of the more productive of remaining fish rearing and refuge areas.

Policy of Washington Department of Fish and Wildlife and Western Washington Treaty Tribes Concerning Wild Salmonids, December 5, 1997, Policy Statement #14:

"Provide, restore, and maintain safe and timely pathways to all useable wild salmonid habitat in fresh and marine waters, for salmonids at all life stages.

Subbasin.

Yakima subbasin.

Short description.

Protect, restore and reestablish access to productive off-channel rearing habitats, and protect and reconnect floodplains associated with the mainstem Yakima and Naches Rivers.

Section 2. Key words

Mark	Programmatic	Mark		Mark	
	Categories		Activities		Project Types
X	Anadromous fish	+	Construction	X	Watershed
+	Resident fish	+	O & M	+	Biodiversity/genetics
+	Wildlife		Production	+	Population dynamics
	Oceans/estuaries		Research	+	Ecosystems
+	Climate	+	Monitoring/eval.	+	Flow/survival
+	Other	+	Resource mgmt		Fish disease
	(Education)		Planning/admin.		Supplementation
			Enforcement	+	Wildlife habitat en-
		X	Acquisitions		hancement/restoration

Other keywords.

Conservation easement, channel avulsion, residential encroachment, bioengineering.

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship

Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj 1,2,3	Objective	Task a,b,c	Task
1.	Protect at-risk rearing habitats	a.	Collect maps, ownership
	and floodplain areas through		information, consult with real
	conservation easement purchase		estate organizations. Formulate
	and property acquisition.		data sheets.
		b.	Obtain permission to access
			private properties.
		c.	Conduct field surveys.
		d.	Prioritize habitat protection
			candidates based on cost/benefit
			analysis. If necessary, conduct
			Habitat Evaluation Procedures to
			develop priority list for purchase.
		e.	Develop MOA's with interested
			private landowners and land trust
			organizations.

		f.	Conduct land appraisals, hazardous materials assessments and lot line surveys where required.
		g.	Purchase property and/or conservation easements.
		f.	Construct fences where necessary.
2.	Restore connectivity to off- channel rearing habitats and floodplains.	a.	Consult aerial photographs, conduct field surveys in key stream reaches.
		b.	Prioritize habitat reconnection candidates based on cost/benefit analysis.
		c.	Develop MOA's with affected agencies, companies and private landowners.
		d.	Develop construction plans.
		e.	Release construction proposals for bids.
		f.	Secure bids, implement projects.
3.	Restore habitat function in off-channel habitats.	a.	Consult aerial photographs, conduct field surveys in key stream reaches.
		b.	Prioritize habitat restoration projects based on cost/benefit analysis.
		c.	Develop MOA's with affected agencies, companies and private landowners.
		d.	Develop restoration plans.
		e.	Release construction-related portions of restoration projects for bids.
		f.	Secure bids, implement projects.
4.	Monitor and report results of project activities.	a.	Conduct snorkle and/or electrofishing surveys in restored stream reaches.
		b.	If necessary, conduct statistical analysis' on smolt outmigration numbers at the Chandler juvenile facility.
		c.	Report project activities, including

	findings of snorkle surveys.
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Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1.	10/98	09/2001	74
2.	10/98	09/2001	15
3.	10/98	09/2001	7
4.	5/98	09/2001	4

Schedule constraints.

Broken out by each objective, the potential time constraints are as follows:

Objective #1: Protect at-risk rearing habitats and floodplain areas through conservation easement purchase and property acquisition.

Time constraints include land availability, potential limitations of conservation easement recipients, weather limitations on land appraisals, contractor scheduling (for fence construction).

Objective #2: Restore connectivity to off-channel rearing habitats and floodplains.

Time constraints include construction season limitations, contractor schedules permitting delays, permit limitations, and coordinating with private landowners.

Objective #3: Restore habitat function in off-channel habitats.

Time constraints include construction season limitations, contractor schedules permitting delays, permit limitations, and coordinating with private landowners.

Objective #4: Monitor and report results of project activities.

Time constraints include weather limitations.

Major milestones include:

- 1. Inventory subbasin within key reaches to prioritize protection, restoration and reconnection projects.
- 2. Establish contact with private landowners and affected companies.
- 3. Develop MOU's with interested parties.
- 4. Implement habitat protection/restoration/reconnection efforts.

Completion date.

FY2001

Section 5. Budget

FY99 budget by line item

Item	Note	FY99
Personnel	Biologist II	38,940

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	Technician III	23,964
Fringe benefits	Current rate: 25.3%	25,767
Supplies, materials, non- expendable property	Computer (one), office materials, vehicle rental (two), fencing materials (\$10,000)	42,600
Operations & maintenance		0
Capital acquisitions or improvements (e.g. land, buildings, major equip.)	Conservation easements, land purchase	489,293
Travel	One three-day trip to Colorado @ \$131/day + \$900/each for training, Three two-day trips to Portland @ \$125/day	3,336
Indirect costs	Current rate 26.6%	226,100
Subcontracts	For placement construction of fishways and culverts, and for other heavy equipment work.	150,000
Other		0
TOTAL		\$1,000,000

Outyear costs

Outyear costs	FY2000	FY2001	FY02	FY03
Total budget	\$1,000,000	\$1,000,000	0	0
O&M as % of total	0	0		

Section 6. Abstract

Items included in this proposal include:

- 1. Protection of important off-channel rearing habitats associated with the Yakima and Naches mainstems:
- 2. Reconnection of currently inaccessible off-channel rearing habitats;
- 3. Protection and reconnecting stream channels with their attendent floodplain; and,
- 4. Restoration of off-channel rearing habitat function through riparian revegetation.

The goal of the project is to rebuild Yakima River spring chinook and steelhead populations, by working in concert with other fish recovery efforts in the basin. Most notably, the Yakima Klickitat Production Facility, now in place, intends to rebuild **naturally spawning populations** of wild anadromous salmonids. To reach this overarching goal, watershed protection and recovery efforts, such as this proposal, must be implemented.

Off-channel and floodplain habitats in the target reach have been severely reduced through construction of transportation corridors, irrigation development, diking, and through control of the river hydrograph. Project objectives include protection, reconnection and habitat restoration in off-channel rearing habitats (side channels and backwater alcoves) associated with the Yakima and Naches Rivers. Where practical, stream channels will be reconnected with their associated floodplains through levee obliteration, or levee relocation.

The project is relevant to the 1994 Columbia Basin Fish and Wildlife program in that it will contribute to the protection and restoration of anadromous fish stocks in the Yakima Basin. Further, the project will protect and restore terrestrial wildlife species through riparian habitat fencing, and purchase of conservation easements and property.

The project is based upon the scientific principle that protecting, reconnecting and restoring off-channel rearing habitats and floodplains will provide fry/parr with more opportunities to access optimal rearing habitats, ultimately contributing to the rebuilding of Yakima Subbasin spring chinook salmon and summer steelhead populations. This will be achieved by the end of FY2001.

The results of reconnection and restoration will be monitored through snorkle surveys in the treated streams.

Section 7. Project description

a. Technical and/or scientific background.

The Yakima and Naches Rivers are managed to convey irrigation water. Throughout much of the summer, flows are higher than normal in the upper 105 River Miles of the mainstem, and as a result chinook and steelhead fry/parr are often unable to find suitable rearing habitats. During the winter, irrigation reservoir releases are kept to a minimum, with flows too low for optimal rearing. Many side channels and alcoves become isolated or dewatered altogether, while others become too shallow to provide functional rearing habitat. The result is a reduction in mainstem rearing habitat quantity and quality throughout the year (Yakima Subbasin Plan, 1990).

This project is inseparable from project #9704700, titled "Yakima River Basin Side Channel Survey & Rehabilitation", which was funded in FY97. The primary goal of the survey & rehabilitation project is to quantify inaccessible off-channel habitat abutting the mainstem Naches and Yakima Rivers, as well as seasonally accessible habitat that strands and kills juvenile salmonids when the irrigation season ends. These findings will formulate the basis for habitat restoration and protection prescriptions. Funding to implement the prescriptions of the survey and rehabilitation project is intended to come from ongoing funding under the Yakima Basin Side Channels project.

This project is a complement to project #9006900, the Yakima Hatchery, which strives to rebuild <u>naturally spawning/rearing</u> stocks of anadromous salmonids. The intent to rebuild natural runs obligates fish managers to restore watershed health, in part through the protection, reconnection and restoration of off-channel rearing habitats.

The success of this project is facilitated by BPA project #96FC96064, the Wilson Creek Riparian Zone Restoration Project, which has raised awareness of salmon habitat requirements among several influential agricultural producers in lower Kittitas County. To date, riparian restoration has taken place on over three miles of shoreline, mostly on private land. Several landowners are now supportive of the YIN's objectives for habitat protection and restoration. The awareness and support that has been raised will help implement this project's objectives for habitat protection and restoration.

Another complementary YIN riparian restoration project was implemented in 1995-96, in the Cowiche Creek watershed. This project was funded through the Environmental Protection Agency with Clean Water Act Section 319 funds. Again, demonstrating the benefits of maintaining riparian habitat on agricultural land was the goal. Through this project, habitat restoration/protection occurred on 15 private parcels. Meetings were conducted with 40 landowners. Awareness of the YIN's objectives for habitat protection and restoration came about through this project, which will facilitate the implementation of this project in that geographic region.

Mitigation for losses will occur in place, by protecting and restoring access to off-channel rearing habitats. During conceptual planning, the project focused primarily on four reaches. While the target reaches have multiple side channels and backwater alcoves, some have been compromised by diking, and all are at risk of rapid conversion from farming/ranching to residential development. Much of the residential development will occur along the river corridor, as this is viewed by many as the most aesthetically valuable development property in the region. As structures are built on the river floodplain, opportunities to allow natural channel migration to continue are irrevocably lost.

Previous work related to this proposal includes the following:

- 1. Kershaw/Gleed floodplain protection project- This involves property acquisition and flood protection in the Gleed area of the Naches River. In this reach, the river underwent channel avulsion during the February 1996 flood. In an effort to address private landowner concerns while protecting newly created side channel habitat, Washington State fish habitat funding was secured to construct a bioengineered setback levee at the extreme edge of the floodplain to protect a landowner's residence. Downstream, a separate MOU and land purchase option was developed to pursue purchase of a 60 acre parcel of private land that has a substantial amount of side channel rearing habitat. Virtually the entire parcel proposed for purchase would be inundated during a significant flood event.
- 5. Rambler's Park floodplain reconnection project- This project involves plans to relocate frequently flooded residences and businesses in the Rambler's Park vicinity of the Naches River. This project has received funding from the Federal Emergency Management Agency, the eastern Washington

The Washington State Office of Financial Management forecasts that Washington State will grow by roughly 50% over the next 20 years, from 5.6 million to over eight million. Within the Yakima Basin, Kittitas and Yakima County are expected to grow by three percenting the Page 8

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Regional Fisheries Enhancement Group, the Interagency Committee for Outdoor Recreation. The objective of the project is to relocate all structures to areas outside of the floodplain, to move a 1100 foot long levee roughly ¼ mile farther away from the river channel, and to initiate riparian recovery through limited riparian plantings, in clumps throughout the property. As a result of the project, roughly 200 acres of floodplain will be reconnected to the river.

- 6. Granger side channel enhancement- This project lies on WDFW property, and involves restoring a 35 acre parcel of floodplain property that is currently dominated by weedy species to a cottonwood/willow/dogwood riparian community. This will enhance habitat function in an alcove of the Yakima River through construction of grade controls and relocation of large woody debris that is onsite. Total project cost is estimated at \$10,000.
- 7. Selah Ditch channel enhancement- This ongoing project involves riparian revegetation, placement of large woody debris, stormwater treatment and environmental education with the local school district. Students from the school have gathered water quality data, as well as an inventory of flora and fauna that utilize the channel. The Washington Department of Transportation has used the lower portion of the project area as a mitigation site for a bridge project. The Selah City Council has toured a portion of the project, has expressed strong support for the project, and is working toward improved stormwater treatment in the city as a result.

Preliminary work has been done on a host of other projects, including side channel restoration on a BLM-owned property, habitat restoration in the Gladmar pond side channel, reconnecting a side channel of the Teanaway River on the Niner/Congdon properties, enhancement of a Yakima River side channel on the Culley property, and juvenile passage improvement into a Naches River side channel near the mouth of Cowiche Creek.

The proposed work is a logical component of the *Wy-Kan-Ush-Mi Wa-Kish-Wit*, the Yakima Subbasin Plan, and the 1994 Fish and Wildlife Program, because the project strives to put the fish back into the habitat, and to protect the most productive habitat abutting the mainstems of the Yakima and Naches Rivers.

b. Proposal objectives.

Objectives of this project include:

- 8. Protect at-risk rearing habitats and floodplain areas into perpetuity through conservation easement purchase and property acquisition. Protect habitat from grazing impacts through fencing. Property appraisals have not been conducted, but a conservative estimate is \$2500 per acre.
- 9. Restore connectivity to off-channel rearing habitats and floodplains.
- 10. Restore habitat function in off-channel habitats.
- 11. Monitor project results through snorkle surveys. Record project results through annual reporting.

Products of this project include:

- 12. Permanent protection through conservation easements and property acquisition of perhaps many hundred of acres of off-channel and floodplain habitat;²
- 13. Fencing to protect riparian habitat from overgrazing;
- 14. Habitat restoration in many additional acres of off-channel and floodplain habitat;
- 15. Habitat reconnection to afford juvenile access into off-channel habitats;
- 16. Floodplain reconnection to the river through levee obliteration and relocation; and,
- 17. Annual reports on project efforts and results, including amount of habitat protected, reconnected and restored.

c. Rationale and significance to Regional Programs.

As stated in 7.a., under current conditions in the Yakima Subbasin, rearing habitat function in the mainstem

² In the first year of the project, funds with the space of the project over 200 acres of floodplain/off-channel habitat. It is highly likely that similar results will occur freshe second year of funding.

is sharply compromised because of irrigation delivery-related impacts on the hydrograph. Further, riparian and floodplain habitat function continues to degrade as more land is converted from farming/ranching to suburban development. In many locations, floodplain function has been permanently lost, because homes have been constructed within the channel migration zone, effectively precluding further natural channel meandering. Both legal and illegal diking has been undertaken in an attempt to protect floodplain dwellings from inundation. Even illegal dikes become institutionalized through time, and permits are issued for their repair when they are ultimately destroyed during a flood.

Residential development is occurring at a rapid rate along most of the Yakima mainstem, with roughly three percent annual growth rates basin-wide, and additional recreational growth that is not reflected in the growth forecasts. This project would protect what remains of the best riparian, floodplain and off-channel habitat from permanent loss.

This project will further the goals of the Fish and Wildlife Program (FWP), through protecting at-risk, highly productive habitat, and through restoring migratory access to productive tributary habitats. At section 7.6, the FWP states: "wild and naturally spawning populations of salmon and steelhead are generally at low levels throughout the Columbia River Basin as a result of impaired mainstem passage, blocked habitat, habitat degradation...". Later in the same section, the FWP states: "However, maintenance and recovery of anadromous fish resources will not be possible unless dramatic steps are taken to **protect existing high quality habitat**, **improve the quality of degraded habitat**, and increase the quantity of **presently blocked habitat that could be made accessible... "Habitat has decreased by more than a third..." (emphasis mine).**

Under section 7.6A, the FWP states that the goals for rebuilding Columbia River salmon stocks include: "At a minimum, maintain the present quantity and productivity of salmon and steelhead habitat. Then, improve the productivity of salmon and steelhead habitat critical to recovery of weak stocks. Next, enhance the productivity of habitat for other stocks of salmon and steelhead. Last, provide access to inaccessible habitat that has been blocked by human development activities."

This project fits well with other habitat and fish production efforts ongoing in the basin, in that it focuses on protecting, reconnecting and restoring habitat function in off-channel rearing habitats of the mainstem Yakima and Naches Rivers. In that ongoing fish restoration efforts strive to rebuild the natural-spawning population, addressing the compromised nature of rearing habitat in the mainstem is a critical step toward achieving anadromous fish restoration.

d. Project history

This project was approved as a deferred watershed project in FY97. Funds were not awarded until December 1997. One FTE has been allocated to this project, and the position is expected to be filled on February 9 of this year. However, as mentioned in Section 7.a. above, much work has already been undertaken to begin implementing the project.

e. Methods.

This watershed restoration project is based upon the following scientific principles:

- In the face of rapid residential development, off-channel and floodplain habitats that have high functional value must be protected in perpetuity in order to maintain thier function;
- Reconnection of floodplain and off-channel rearing habitats is a necessary component of restoring ecosystem productivity; and,
- Opportunities to protect, reconnect and restore rearing and floodplain habitats are being lost incrementally, as land is converted from low-intensive to high-intensive uses.

Each of these principles are called for in the document <u>Return to the River</u>, which recommends: "A well-distributed network of reserve watersheds and riverine habitat patches, based on the current distribution of strong subpopulations of native salmonids, should be designated and protected from

new land-disturbing activities in order to establish experimental natural baselines for evaluation of effectiveness of management practices and to establish a biological hedge against possible failure of BMP's to conserve and enhance aquatic habitat in treated areas" (Return to the River, 1996).

Tasks and methodology have been described in detail in the <u>1997 Standard Template for Projects</u> form that was forwarded to the BPA for this project when it was initially funded (Standard Template for Projects, Yakima Basin Side Channels, Project #9705100). The tasks are summarized below:

- Task 1.1: Collect maps, ownership information, consult with real estate organizations. Formulate data sheets.
- Task 1.2: Obtain permission to access private properties.
- Task 1.3: Conduct field surveys.
- Task 1.4: Prioritize habitat protection candidates based on cost/benefit analysis. If necessary, conduct Habitat Evaluation Procedures to develop a priority list for purchase.
- Task 1.5: Develop MOA's with interested private landowners and land trust organizations.
- Task 1.6: Conduct land appraisals, hazardous materials assessments and lot line surveys where required.
- Task 1.7: Purchase property and/or conservation easements.
- Task 1.8: Construct fences where necessary.
- Task 2.1: Consult aerial photographs, conduct field surveys in key stream reaches.
- Task 2.2: Prioritize habitat reconnection candidates based on cost/benefit analysis.
- Task 2.3: Develop MOA's with affected agencies, companies and private landowners.
- Task 2.4: Develop construction plans.
- Task 2.5: Release construction proposals for bids.
- Task 2.6: Secure bids, implement projects.
- Task 3.1: Consult aerial photographs, conduct field surveys in key stream reaches.
- Task 3.2: Prioritize habitat restoration projects based on cost/benefit analysis.
 - Task 3.3: Develop MOA's with affected agencies, companies and private landowners.
 - Task 3.4: Develop restoration plans.
- Task 3.5: Release construction-related portions of restoration projects for bids.
- Task 3.6: Secure bids, implement projects.
- Task 4.1: Conduct snorkle and/or electrofishing surveys in restored stream reaches. Task 4.2: Conduct statistical analysis' on smolt outmigration
 - numbers at the Chandler juvenile facility.
- Task 4.3: Report project activities, including findings of snorkle surveys.

Project benefits will be tested through snorkle surveys in reconnected off-channel habitats. Environmental protection requirements will be required for all work within the ordinary high water mark of streams via the Washington State Hydraulics Code. Additional environmental protection measures will be required through the National Environmental Protection Act. Temporary risks to other organisms stem from

construction related activities. Permanent alteration of riparian habitat may occur through reconnection of streams to their attendant floodplains, and through increasing flow into off-channel rearing habitats.

Fisheries managers expect that permanent protection of off-channel rearing habitats and floodplains will provide improved and sustained riverine productivity for anadromous salmonids. Improving flow conditions to off-channel habitats that, under the current regulated flow regime function as "death traps", is expected to improve egg to smolt survival rates. Improving habitat function through fencing and limited riparian revegetation is expected to improve egg to smolt survival over the long-term.

f. Facilities and equipment.

The project utilizes the YIN fisheries office building as a main office. Vehicles are leased through GSA. Budgeting for field equipment needed was made in the fy97 application. Additional field equipment is available through the YIN fisheries program. One office computer has been secured. No special or high-cost equipment will be required.

g. References.

Yakima River Subbasin Plan. 1990. Prepared for the Columbia Basin Fish and Wildlife Authority. YIN, WDF, WDW.

Return to the River: Restoration of Salmonid Fishes in the Columbia River Ecosystem. Prepublication Copy. 1996. The Independent Scientific Group.

Office of Financial Management. 1990. 20-year Populations Projections for Washington State.

Section 8. Relationships to other projects

Other projects funded under the FWP include project #9006900, the Yakima Hatchery, which strives to rebuild <u>naturally spawning/rearing</u> stocks of anadromous salmonids. This project is critical to the success of the hatchery, because habitat function of off-channel habitats has been severely reduced due to flow regulation. The hatchery's intent to rebuild natural runs obligates fish managers to protect, restore and reconnect the mainstem with off-channel and floodplain habitats.

This project is a logical progression from BPA project #96FC96064, the Wilson Creek Riparian Zone Restoration Project. Although they are not critically linked, the riparian restoration project has educated many landowners on fish resources found in the Yakima subbasin, and the need to maintain healthy stream habitat. Currently the YIN has a

working rapport in Wilson Creek never before experienced. Several third-generation landowners have given YIN biologists permission to access their property as needed to conduct habitat restoration work.

The project is related to BPA project #9705200 titled "Enhancement Between Selah & Union Gaps" which strives to work intensively in a ten mile reach of the Yakima mainstem protecting and improving migratory access to suitable rearing habitats.

Section 9. Key personnel

Scott Nicolai, Assistant Environmental Manager, YIN Fisheries Resources Program. Duties will include project oversight. Qualifications include Masters Degree in Natural Resources Management, six years experience working in the field of fisheries habitat management, project oversight on five large habitat restoration projects and numerous small projects. Current employer is the Confederated Tribes and Bands of the Yakama Indian Nation. Job completions include the Cowiche Creek Riparian Zone Restoration Project, the lower Wilson Creek barrier/diversion survey report, the Brunson bioengineering bank stabilization and riparian habitat restoration project, and the Teanaway Junction Side Channel enhancement project. Additional ongoing job requirements include review and comment on SEPA documents, NEPA documents, Shoreline, Hydraulics and 404 permits, and Growth Management Act Plans. Also tracks and provides technical input to local Watershed Councils.

Section 10. Information/technology transfer

The technical information resulting from this project (and its component tasks) will be distributed in the following ways:

- A completion (annual) report will be submitted to Bonneville at the close of the fiscal (calendar) year and Bonneville will distribute copies to all individuals and agencies on its mailing list.
- Excerpted data will be appropriately formatted and submitted to the Northwest Aquatic Information Network (StreamNet) and made available to the public via the Internet.
- Community "town hall" type meetings will be held as deemed necessary in areas near where work is proposed.